

Novartis Health, Safety and Environment (HSE) Data 2020

Apr 21, 2021

The Reporting Process

HSE data is collected and reviewed on a quarterly basis. The 2020 environmental and resource data published in the Annual Report and in the Novartis in Society Report are actual data for the period from January through September and best estimates for the period October through December. This data has now been updated with actual data in the first quarter of 2021, following the criterias set out by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

	Novartis Group ¹				
	2020	2019	2018	2017	2016
HSE Personnel	315	336	393	422	428
Total Production [1000 t]	84.1	99.5	112.7	113.2	117.7
Safety					
Lost time injury and illness rate (per 200 000 hours worked) ²	0.13	0.18	0.15	0.12	0.08
Total recordable case rate (per 200 000 hours worked) ^{2, 3}	0.23	0.35	0.33	0.30	0.24
Energy					
Energy use [million GJ] on-site and purchased	10.85	12.75	13.04	13.39	13.57
• Energy, On-site generated [million GJ]	4.97	6.20	5.75	5.84	5.88
• Energy, Purchased [million GJ]	5.99	6.68	7.41	7.68	7.80
• Energy, Sold [million GJ]	0.11	0.13	0.12	0.13	0.12
Energy, Input from renewable sources [million GJ]	2.82	2.16	2.61	2.18	2.13
Energy, Intensity per area [GJ/100m ²]	283.1	314.8	314.8	332.3	337.7
Water					
Water withdrawal [million m ³]	54.7	66.8	69.5	72.6	75.9
• Water purchased from suppliers [million m ³]	5.9	9.4	10.4	10.1	10.9
• Water abstracted from the aquatic environment [million m ³]	48.7	57.3	59.0	62.4	64.8
• Water from other sources [million m ³]	0.0	0.0	0.1	0.1	0.1
Water discharged directly to aquatic environment (cooling water) [million m ³]	46.1	55.5	57.9	60.8	62.4
Water consumption [million m ³] ⁴	8.4	11.2	11.9	12.2	13.0
• Water discharged via treatment [million m ³]	7.3	10.0	10.6	10.9	11.4
• Water lost [million m ³]	1.1	1.2	1.3	1.3	1.6
Emissions					
GHG emissions, total Scope 1 & Scope 2 incl. forestry offsets [ktCO ₂ e]	674.7	868.3	874.6	866.3	907.7
• GHG forestry offsets [ktCO ₂ e]	33.6	29.8	54.9	71.8	65.7
GHG emissions, total Scope 1 & Scope 2 [ktCO ₂ e]	708.3	898.1	929.5	938.1	973.4
• GHG Scope 1, Combustion & process [ktCO ₂ e]	286.9	356.6	334.5	330.5	335.1
• GHG Scope 1, Vehicles [ktCO ₂ e]	91.3	128.4	146.3	140.8	129.3
• GHG Scope 2, Purchased energy [ktCO ₂ e] market-based method	330.1	413.2	448.7	466.8	508.9
GHG Scope 2, Purchased energy [ktCO ₂ e] location-based method	396.9	456.9	530.0	532.6	610.0
GHG Scope 3, business travel [ktCO ₂ e]	25.1	191.3	211.7	200.0	125.5
Halogenated VOCs [t]	11.6	26.6	79.0	75.6	43.6
Non-halogenated VOCs [t]	443.0	406.8	480.1	457.2	446.0
Sulfur dioxide, SO ₂ [t]	4.3	4.6	13.6	15.4	15.0
Nitrogen oxide NO _x [t]	212.2	236.3	236.6	231.1	230.7
Particulates [t]	11.6	12.9	58.3	58.4	54.6
Ozone-depleting substances, emissions caused by losses [tCFC R11e]	0.0	0.0	0.1	0.0	0.1
Effluents and Waste					
Emissions into Water, TSS Load [t]	215.7	198.2	238.5	358.7	360.9
Emissions into Water, COD Load [t]	1,606.7	1,842.3	2,051.4	2,658.9	2,761.0
Emissions into Water, Nitrogen Load [t]	240.6	207.5	197.0	246.5	258.6
Emissions into Water, Phosphate Load [t]	41.2	34.7	40.0	41.4	47.9
Amount of significant HSE fines or penalties [kUSD]	5.3	13.7	67.4	9.4	4.0
Waste Disposal (waste not recycled) [1000 t]	42.0	54.1	59.9	60.8	67.5
Hazardous Waste to recycling [1000 t]	28.7	58.8	57.5	54.7	50.5
Hazardous Waste to treatment [1000 t]	1.6	4.0	4.5	4.9	4.4
Hazardous Waste to incineration [1000 t]	31.6	37.2	42.8	43.1	49.2
Hazardous Waste to landfill [1000 t]	0.0	0.0	0.0	0.0	0.0
Hazardous waste recycled [%]	46.4 %	58.8 %	54.9 %	53.2 %	48.5 %
Non-Hazardous Waste to recycling [1000 t]	59.9	57.7	57.2	55.4	56.7
Non-Hazardous Waste to treatment [1000 t]	0.5	0.4	0.2	0.3	0.6
Non-Hazardous Waste to incineration [1000 t]	5.3	8.4	8.1	8.7	9.2
Non-Hazardous Waste to landfill [1000 t]	3.0	4.1	4.2	3.7	4.2
Non-hazardous waste recycled [%]	87.2 %	81.7 %	82.0 %	81.3 %	80.2 %
Debris (non-operational waste), Hazardous [1000 t] ⁵	0.5	0.4	6.4	4.4	18.1
Debris (non-operational waste), Non-Hazardous [1000 t] ⁵	14.0	32.5	59.9	451.1	112.8

¹ HSE data for Novartis Group reflects continuing operations according to the criterias set out by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

² Includes Novartis associates and third party personnel managed by Novartis associates.

³ Includes all work-related injury and illness, whether leading to lost time or not.

⁴ Our Group internal definition of "Water Consumption" is the sum of all water discharged via treatment and of all water lost, and as such is different from CDP/GRI definitions, which would correspond to water lost in the above table. This change was made to ensure that we focus on reducing the water we use, which requires treatment before being returned to the environment.

⁵ Debris are non-operational waste from demolition or construction of new buildings and any other constructive or landscape changes.

